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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,888

10/24/2005

Tadashi Hibino

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EXAMINER

BOSWELL, CHRISTOPHER J

ART UNIT

PAPER NUMBER

3673

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/553,888	Applicant(s) HIBINO ET AL.	
	Examiner CHRISTOPHER BOSWELL	Art Unit 3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8, 19 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8, 19 and 21-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Number 4,907,427 to Armstrong.

Armstrong discloses a steering locking device comprising a locking device (22) for automatically locking a steering shaft (12) when a key of an ignition switch (36) is withdrawn in a state in which the key is withdrawable (column 2, lines 5-14), wherein a key mechanism section and the locking device of the ignition switch are provided separately (key mechanisms are inherently disposed within the interior of the cabin of vehicles, whereas the applied locking device is located adjacent to the axels), and the locking device is provided about a pinion shaft (12 and 204) of a steering gear section (20 and 200) having a rack and pinion mechanism (202 and 204), the rack & pinion mechanism including a pinion shaft (12 and 204) connected to the steering shaft and a rack shaft (202) disposed at a midpoint of a tie rod which connects tires on both sides (figures 1 and 19), and the pinion shaft and the rack shaft are adapted to convert a rotational movement from the steering shaft to a linear movement of the tie rod (figures 1 and 19), and the locking device is provided on a lower side of the rack shaft near a lower end of the

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pinion shaft of the steering gear section (figures 1 and 19), and the locking device locks the pinion shaft directly (column 9, lines 22-27), as in claim 8.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 19, 21-22 and 24-25 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication Number 2003/0160413 to Kinme et al.

Kinme et al. disclose a steering locking device comprising a locking device (6 and 52) for automatically locking a steering shaft (21) when a key of an ignition switch (7) is withdrawn in a state in which the key is withdrawable (paragraph 32), wherein a key mechanism section (7) and the locking device of the ignition switch are provided separately (figure 2), and the locking device is provided in the outside of a housing of a speed reduction unit (contained within element 8) of a column-type electric power steering apparatus (element 6 is disposed in the outside of the speed reduction unit housing; figure 2) and on a side of an output (22) of the speed reduction unit (where the side with element 1 is the input side of the shaft, the output side of the shaft is disposed opposed to the input), and the speed reduction unit reduces a drive force of a motor (4) and transmits it to the output shaft connected to the steering shaft (via worm gear 51), as in claim 19.

Kinme et al. also disclose where the locking device is provided on a yoke (figures 2 and 4) connected to the output shaft of the speed reduction unit, as in claim 21, and the locking device has a key lock collar (52), the key lock collar is formed on the output shaft via a ring

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member (52b), as in claim 22, and a groove (52c) for a key lock (6a) is formed to the output shaft, as in claim 24, as well as the locking device electrically makes a lock pin (6a) reciprocate based on a key information supplied via a harness connector (7), as in claim 25.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kinme et al., as applied above, in view of Armstrong.

Kinme et al. discloses the invention substantially as claimed. Kinme et al. discloses the locking device having a key lock collar (52) that is formed on the output shaft via a ring member (52b), and a groove (52c) on the key lock collar for a key lock (6a). However, Kinme et al. does not disclose how the key collar is fixed to the output shaft. Armstrong teaches of a steering lock device (10) having a lock collar (48 and 50) formed about a steering shaft (12), wherein the lock collar is affixed about the steering shaft by welding (column 4, lines 5-16) in the same field of endeavor for the purpose of attaining a strong joint without the possibility of fasteners becoming loosened. It would have been obvious to one with ordinary skill in the art at the time the invention was made to weld the key lock collar of Kinme et al. to the output shaft by welding, as taught by Armstrong, in order to attain a strong joint without the possibility of fasteners becoming loosened.

Response to Arguments

Applicant's arguments filed April 4, 2008 have been fully considered but they are not persuasive. In regards to the argument that Armstrong does not disclose the locking device locking the pinion shaft directly, the examiner respectfully disagrees. Armstrong discloses in column 9 lines 22-25 that the present invention can be used with various moveable steering control mechanisms, such as the steering wheel shaft or rack of the rack and pinion assembly of the steering mechanism to provide an effective anti-theft device, wherein the locking device locks the steering wheel shaft or pinion shaft directly.

Regarding the argument that Kinme et al. do not provide the lock device on the outside of the speed reduction unit and on the side of the output shaft of the speed reduction unit, the examiner respectfully disagrees. As shown in figure 2, the lock device (6) is substantially outside of the housing for the speed reduction unit (8), where the lock device protrudes through the housing to engage the key lock collar.

In regards to the argument that Kinme et al. does not disclose the lock device being provided on the side of the output shaft of the speed reduction unit, the examiner respectfully disagrees. After careful review of claim 19, the examiner notes that the aforementioned limitation only requires the locking device to be on a side of an output shaft of the speed reduction unit, wherein where the side with element 1 is the input side of the shaft, the output side of the shaft is disposed opposed to the input, and thus the locking device is disposed on a side of the output shaft.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER BOSWELL whose telephone number is (571)272-7054. The examiner can normally be reached on 9:00 - 4:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Engle can be reached on (571) 272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patricia L Engle/
Supervisory Patent Examiner, Art Unit 3673

Christopher Boswell
Examiner
Art Unit 3673

CJB /cb/
August 5, 2008